

REMARKS

Claims 1, 3, 5-15, and 27-30 are pending in the application. Claims 1, 13 and 27 are independent. By the foregoing Amendment, claims 1 and 13 have been amended, and claim 4 has been canceled. These changes are believed to introduce no new matter and their entry is respectfully requested.

Rejection of Claims 1, 3-4, and 10-15 Under 35 U.S.C. §103(a)

In the Office Action, the Examiner rejected claims 1, 3-4, and 10-15 under 35 U.S.C. §102(e) as being obvious over by U.S. Patent Publication No. 2002/0124134 to Chilton (hereinafter “*Chilton*”) in view of U.S. Patent No. 6,968,414 to Abbondanzio et al. (hereinafter “*Abbondanzio*”). Applicants respectfully traverse the rejection.

To establish a *prima facie* case of obviousness, the Examiner must show that the cited references teach each and every element of the claimed invention. (MPEP §2143.) *citing In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)). A patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was independently known in the prior art. *KSR Int'l C. v. Teleflex, Inc.*, No 04-1350 (U.S. Apr. 30, 2007). If a combination or modification to a reference is used, an Examiner must show that there is some expectation of success that the combination or modification proffered would predictably result in the claimed invention. Obviousness is a question of law based on underlying factual inquiries. The factual inquiries enunciated by the U.S. Supreme Court in *KSR* include the *Graham* factors of determining the scope and content of the prior art, ascertaining the differences between the claimed invention and the prior art, and resolving the level of ordinary skill in the pertinent art.

Once the *Graham* factual inquiries are resolved, the Examiner must explain why the difference(s) between the cited references and the claimed invention would have been obvious to one of ordinary skill in the art. The rationale used must be a permissible rationale. The USPTO promulgated Examination Guidelines for Determining Obviousness in View of *KSR* in the

Federal Register, Vol. 72, No. 195 (October 10, 2007). These *KSR* Guidelines enumerate permissible rationale and the findings of fact that must be made under the particular rationale.

One such permissible rationale is called “Combining Prior Art Elements.” It appears that the Examiner is using this rationale to reject claims 1, 3-4, and 10-15. According to the Examination Guidelines for Determining Obviousness in View of *KSR*, to use the “Combining Prior Art Elements” rationale as a basis for rejecting claims, an Examiner must articulate four things: (1) a finding that the prior art included each element claimed, although not necessarily in a single prior art reference, with the only difference being the lack of actual combination of the elements in a single reference; (2) a finding that one of ordinary skill could have combined the elements as claimed by known methods, and that in combination, each element merely would have performed the same function as it did separately; (3) a finding that one of ordinary skill would have recognized that the results of the combination were predictable; and (4) any additional findings based on the *Graham* factual inquiries to explain the conclusion of obviousness. If any of these findings cannot be made, then this rationale cannot be used to support a conclusion of obviousness.

Applicant respectfully submits that in this instance this rationale cannot be used. Amended independent claim 1 recites in pertinent part ***“the method being facilitated by firmware running on the plurality of computing resources,*** the method receiving a resource access request to access a shared resource at a first computing platform; determining a second computing platform via which the shared resource may be accessed, wherein the first and second computing platforms comprise a first server blade and a second server blade, respectively, operating in a blade server environment; sending the resource access request to the second computing platform; and accessing the shared resource via the second computing platform” (emphasis added). Amended claim 13 recites similar features. Support for these changes can be found in original claim 4, thus no new search is necessitated by the amendment.

In the Office Action, the Examiner states that *Chilton* discloses at paragraph [0036] receiving a resource access request to access a shared resource at a first computing platform, determining a second computing platform via which the shared resource may be accessed,

sending the resource access request to the second computing platform, and accessing the shared resource via the second computing platform. In the Office Action, the Examiner states with regard to claim 13 that *Chilton* discloses configuring the plurality of storage devices as a virtual storage volume at paragraphs [0034-0036]; maintaining a global resource map that maps input/output (I/O) blocks defined for the virtual storage volume to corresponding storage devices that actually host the I/O blocks at paragraphs [0034-0036]; receiving a data access request identifying an I/O block from which data are to be accessed via the virtual storage volume at paragraph [0036]; identifying a computing platform via which a target storage device that actually hosts the I/O block may be accessed through use of the global resource map at paragraphs [0035-0036]; routing the data access request to the computing platform that is identified at paragraph [0036]; and accessing the I/O block on the target storage device via the computing platform that is identified paragraph [0036].

In the Office Action, the Examiner concedes that *Chilton* fails to disclose the use of blade servers but asserts that *Abbondanzio* discloses blade servers. The Examiner then determines that it would have been obvious to “incorporate the use of blade servers in distributed computing systems... for the purpose of permitting hot-swappable expansion of a server system.” Applicants respectfully disagree.

Applicant respectfully submits that the Examiner has failed to show how one of ordinary skill could have combined the elements in *Chilton* and *Abbondanzio* as claimed by known methods, and that in combination, each element merely would have performed the same function as it did separately. For example, if the “distributed computing system” in *Chilton* were combined with the blade servers in *Abbondanzio*, and each of these performed the same function as they did separately, the combination of *Chilton* and *Abbondanzio* would not result in the claimed invention. The feature of “*the method being facilitated by firmware running on the plurality of computing resources*,” as recited in claims 1 and 13, is not disclosed in the combination of *Chilton* and *Abbondanzio*.

Although in the Office Action, the Examiner states with regard to claim 4 that *Chilton* discloses wherein the method is facilitated by firmware running on each of the plurality of

computing platforms at paragraph [0027]. Applicants respectfully disagree with the Examiner's characterization of *Chilton*. Nowhere in *Chilton* is the term "firmware" mentioned, let alone in paragraph [0027] as asserted by the Examiner. The same can be said for *Abbondanzio*. That is, nowhere in *Abbondanzio* is the term "firmware" mentioned. Applicants respectfully submit that because the this feature is missing from the combination of *Chilton* and *Abbondanzio* the Examiner has not shown how one of ordinary skill could have combined the elements in *Chilton* and *Abbondanzio* as claimed by known methods, and that in combination, each element merely would have performed the same function as it did separately. As such, this rationale cannot be used to support a conclusion of obviousness and accordingly, Applicants respectfully submit that claims 1 and 13 are patentable over *Chilton* in view of *Abbondanzio*.

Claim 4 has been canceled rendering the rejection to it moot. Claims 3 and 10-12 properly depend from claim 1. Accordingly, Applicants respectfully submits that claims 3-4 and 10-12 are patentable for at least the same reasons that claim 1 is patentable. (MPEP §2143.03 (citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)). Accordingly, Applicant respectfully requests that the Examiner reconsider and remove the rejection to claims 1, 3-4, and 10-12.

Claims 14-15 properly depend from claim 13. Accordingly, Applicant respectfully submits that claims 14-15 are patentable for at least the same reasons that claim 13 is patentable. (MPEP §2143.03 (citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)). Accordingly, Applicant respectfully requests that the Examiner reconsider and remove the rejection to claims 13-15.

Rejection of Claims 5-9 Under 35 U.S.C. §103(a)

In the Office Action, the Examiner rejected claims 5-9 under 35 U.S.C. §103(a) as being obvious over *Chilton* in view of U.S. Patent No. 5,696,895 to Hemphill et al. (hereinafter "*Hemphill*"). Applicants respectfully traverse the rejection.

Claims 5-9 properly depend from claim 1. Accordingly, Applicant respectfully submits that claims 5-9 are patentable for at least the same reasons that claim 1 is patentable. (MPEP

§2143.03 (citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)). Accordingly, Applicant respectfully requests that the Examiner reconsider and remove the rejection to claims 5-9.

Rejection of Claims 27-30 Under 35 U.S.C. §103(a)

In the Office Action, the Examiner rejected claims 27-30 under 35 U.S.C. §103(a) as being obvious over *Chilton* in view of *Abbondanzio* in further view of *Hemphill*. Applicants respectfully traverse the rejection.

It again appears that the Examiner is using the “Combining Prior Art Elements” rationale to reject claims 27-30. Applicant respectfully submits that in this instance this rationale cannot be used. Independent claim 27 recites in pertinent part “a chassis, including a plurality of slots in which respective server blades may be inserted; an interface plane having a plurality of connectors for mating with respective connectors on inserted server blades and providing communication paths between the plurality of connectors to facilitate in out of band (OOB) communication channel; and a plurality of server blades, each including a processor and ***firmware executable thereon to perform operations including:*** receive a resource access request from an operating system running on a requesting server blade to access a shared resource hosted by at least one of the plurality of server blades; determining a target resource host from among the plurality of server blades that hosts a target resource that may service the resource access request; sending the resource access request to the target resource host; and accessing the target resource via the target resource host to service the resource access request” (emphasis added).

In the Office Action, the Examiner cited *Chilton* for teaching receive a resource access request from an operating system running on a requesting server blade to access a shared resource hosted by at least one of the plurality of server blades; determining a target resource host from among the plurality of server blades that hosts a target resource that may service the resource access request; sending the resource access request to the target resource host; and accessing the target resource via the target resource host to service the resource access request. The Examiner cited *Abbondanzio* for teaching a chassis, including a plurality of slots in which respective server blades may be inserted; an interface plane having a plurality of connectors for

mating with respective connectors on inserted server blades and providing communication paths between the plurality of connectors to facilitate in out of band (OOB) communication channel; and a plurality of server blades, each including a processor and firmware to perform operations. The Examiner then determines that it would have been obvious to “incorporate the use of blade servers in distributed computing systems... for the purpose of permitting hot-swappable expansion of a server system.”

Applicants respectfully submit that the Examiner has failed to show how one of ordinary skill could have combined the elements in *Chilton* and *Abbondanzio* and *Hemphill* as claimed by known methods, and that in combination, each element merely would have performed the same function as it did separately. For example, assuming for the sake of argument that if the “distributed computing system” in *Chilton* were combined with the blade servers in *Abbondanzio* and the out-of-band communication channel of *Hemphill* and each of these performed the same function as they did separately, the combination of *Chilton* and *Abbondanzio* and *Hemphill* would not result in the claimed invention. The feature of “**a plurality of server blades, each including a processor and firmware executable thereon to perform operations including,**” as recited in claim 27, is not disclosed in the combination of *Chilton* and *Abbondanzio*.

Although *Hemphill* appears to disclose firmware, it is limited to being used to disable error messages generated by SCSI controllers when they do not have SCSI devices connected on startup. Thus, even if the firmware of *Hemphill* were combined with “distributed computing system” in *Chilton* and the blade servers in *Abbondanzio* each of these performed the same function as they did separately, the combination of *Chilton* and *Abbondanzio* and *Hemphill* would not result in the claimed invention. That is, the firmware in *Hemphill* would not “receive a resource access request from an operating system running on a requesting server blade to access a shared resource hosted by at least one of the plurality of server blades; determining a target resource host from among the plurality of server blades that hosts a target resource that may service the resource access request; sending the resource access request to the target resource host; and accessing the target resource via the target resource host to service the resource access request” as recited in claim 27. Instead, the firmware in *Hemphill* would be limited to disabling

error messages generated by SCSI controllers when they do not have SCSI devices connected on startup, if there were SCSI controllers in the resulting system of *Chilton* and *Abbondanzio*.

Applicants respectfully submit that because the feature of “a plurality of server blades, each including a processor and *firmware executable thereon to perform operations including*: receive a resource access request from an operating system running on a requesting server blade to access a shared resource hosted by at least one of the plurality of server blades; determining a target resource host from among the plurality of server blades that hosts a target resource that may service the resource access request; sending the resource access request to the target resource host; and accessing the target resource via the target resource host to service the resource access request” is missing from the combination of *Chilton* and *Abbondanzio* and *Hemphill* the Examiner has not shown how one of ordinary skill could have combined the elements in *Chilton* and *Abbondanzio* and *Hemphill* as claimed by known methods, and that in combination, each element merely would have performed the same function as it did separately. As such, this rationale cannot be used to support a conclusion of obviousness and accordingly, Applicants respectfully submit that claim 27 is patentable over *Chilton* in view of *Abbondanzio* in further view of *Hemphill*.

Claims 28-30 properly depend from claim 27. Accordingly, Applicants respectfully submit that claims 28-30 are patentable for at least the same reasons that claim 27 is patentable. (MPEP §2143.03 (citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)). Accordingly, Applicants respectfully request that the Examiner reconsider and remove the rejection to claims 27-30.

CONCLUSION

Applicants respectfully submit that all grounds for rejection have been properly traversed, accommodated, or rendered moot and that the application is now in condition for allowance. The Examiner is invited to telephone the undersigned representative if the Examiner believes that an interview might be useful for any reason.

Respectfully submitted,

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10/24/2007
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